R E P O R T R E S U M E S

ED 019 265 TE 000 386

A PRELIMINARY STUDY OF STANDARD ENGLISH SPEECH PATTERNS IN THE BALTIMORE CITY PUBLIC SCHOOLS.

BY- GARVEY, CATHERINE MCFARLANE, PAUL T.
JOHNS HOPKINS UNIV., BALTIMORE, MD.

REPORT NUMBER REPORT-NO-16 PUB DATE MAR 68
REPORT NUMBER BR-6-1610-04
GRANT OEG-2-7-061610-0207
EDRS PRICE MF-$0.25 HC-$1.88 45P.

DESCRIPTORS- *CULTURALLY DISADVANTAGED, *ENGLISH INSTRUCTION, *LANGUAGE PATTERNS, *LANGUAGE USAGE, *STANDARD SPOKEN USAGE, LANGUAGE ARTS, DIALECTS, ECONOMICALLY DISADVANTAGED, ELEMENTARY EDUCATION, GRADE 5, LANGUAGE TESTS, MIDDLE CLASS, NEGROES, SCHOOL SEGREGATION, SPEECH HABITS, TESTING, CAUCASIAN STUDENTS, BALTIMORE, MARYLAND,

LANGUAGE PATTERNS OF BALTIMORE FIFTH-GRADERS FROM FOUR DISADVANTAGED, INNER-CITY ELEMENTARY SCHOOLS--TWO WHITE AND TWO NEGRO--AND FROM ONE WHITE MIDDLE-CLASS SUBURBAN SCHOOL WERE EXAMINED (1) TO IDENTIFY SUBGROUPS WHOSE LANGUAGE BEHAVIOR DIFFERS SYSTEMATICALLY FROM EACH OTHER AND FROM STANDARD ENGLISH, (2) TO GATHER INFORMATION ON THE LANGUAGE REPERTOIRES OF THESE SUBGROUPS, PREPARATORY TO DESIGNING LANGUAGE ARTS TEACHING MATERIALS FOR THEM, AND (3) TO ISOLATE LANGUAGE PATTERNS THAT NEED INTENSIVE TRAINING SEQUENCES. THE CHILDREN WERE ASKED TO REPEAT, AFTER A MODEL, 60 CRITICAL STANDARD ENGLISH SENTENCES, CONTAINING 15 DIFFERENT SYNTACTIC OR MORPHOLOGICAL FEATURES EXPECTED TO DIFFER FROM THEIR NORMAL SPEECH. THE NUMBER AND TYPES OF SEMANTIC, GRAMMATICAL, AND STRUCTURAL TRANSPOSITIONS THEY EMPLOYED IN THE "IMITATION" WERE THEN TABULATED FOR ANALYSIS. ALTHOUGH THE PERCENTAGE OF TRANSPOSITIONS MADE BY THE CHILDREN FROM DEPRIVED BACKGROUNDS EXCEEDED THAT OF THE WHITE MIDDLE-CLASS CHILDREN, RESULTS OF THE TESTING INDICATED THAT THE SUBGROUPS WERE SIMILAR ENOUGH TO JUSTIFY USING SOME COMMON BASES FOR LANGUAGE INSTRUCTION. CERTAIN PROBLEMS INVOLVED IN THE PRODUCTION OF STANDARD ENGLISH WERE IDENTIFIED, HOWEVER, FOR SPECIFIC TREATMENT THROUGH SPECIAL INSTRUCTIONAL SEQUENCES. (INCLUDED IS DATA ON RACIAL DISTRIBUTION AND SOCIOLOGICAL CHARACTERISTICS OF THE SCHOOLS SAMPLED, AND THE VARIATION OF RESPONSES TO STIMULUS SENTENCES.). (JB)

ED019265

THE JOHNS HOPKINS UNIVERSITY

THE CENTER FOR THE STUDY OF SOCIAL ORGANIZATION OF SCHOOLS

REPORT No. 16

A PRELIMINARY STUDY OF STANDARD ENGLISH SPEECH PATTERNS IN THE BALTIMORE CITY PUBLIC SCHOOLS

CATHERINE GARVEY

AND

PAUL T. MCFARLANE

MARCH 1968

TE 000 386

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

APR 2 9 1968

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

A PRELIMINARY STUDY OF STANDARD ENGLISH SPEECH PATTERNS IN THE BALTIMORE CITY PUBLIC SCHOOLS

Project No. 6-1610-04
Contract No. OEG-2-7-061610-0207

Catherine Garvey
and
Paul T. McFarlane

March 1968

The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

The Johns Hopkins University
Baltimore, Maryland

ACKNOWLEDGMENTS

We are indebted to the Baltimore City Public School System for its cooperation in this research. In particular we would like to acknowledge the assistance of the principals and the willing cooperation of the students of the five schools that participated in the study. The paper has benefitted from critical comments by Doris Entwisle, James Fennessey, Edward McDill and James McPartland.

CONTENTS

Acknowledgments i

I. Introduction 1

II. Method 4

Subjects 4

Stimulus Materials 6

Procedures 8

Scoring 8

III. Results 11

IV. Discussion 21

Figure 1 12

Tables

1 5
2 6
3 9
4 10
5 11
6 13
7 15
8 16
9 19
10 20
11 22

References 24

Appendices

A. Stability of Racial Distribution (Percentage Negro) of Selected Schools 25

B. Demographic and Sociological Characteristics of Sample School Neighborhoods 26

C. Stimulus Sentences Arranged According to Critical Structures 27

D. Tape A with Critical Structures for Gross Scoring Underlined 30

E. Range of Variation in Responses to Stimulus Sentences 33

Introduction

One of the first steps in the development of teaching materials for the acquisition of standard language patterns by disadvantaged children is to define the prospective student population. Certain decisions have already been taken in delimiting the population for the preliminary work. For example, 5th and 6th grades have been chosen as the school level for which materials will first be prepared since these grades represent the last opportunity for the schools to exert any concentrated influence on the acquisition of basic language skills.[1] The probable effectiveness of a program of instruction is directly related to the extent to which the cultural and linguistic characteristics of the population are taken into account in the design of the materials. The more information, for example, which is available on the structure of the speech of the children, the more precise can be the statements of instructional emphasis and procedures required to produce the desired terminal language behaviors. Such information would necessarily include not only linguistic descriptions of their speech in both casual and more formal styles, but also, and perhaps more importantly, an estimate of the extent to which they are able to produce and understand Standard English structures. The question then

---

[1] Following the elementary school curriculum, which is generally designated as the 'language arts program', the junior and senior high curriculum in English concentrates primarily on higher level language activities. Such activities include theme composition, the study of literature and poetry, and the organization and presentation of oral reports. These activities presuppose possession of the basic skills underlying reading, spelling, and writing.

arises as to the degree of homogeneity of the student population in respect to these characteristics.

The estimated 1966 Baltimore student population of ages 10-14 was 43,000 whites and 42,000 nonwhites.[2] In 1965, 60 percent of the elementary school whites were in segregated schools (schools containing less than 11 percent nonwhites) and 84 percent of the nonwhites were in segregated schools. The neighborhoods of elementary school children were predominately segregated. Thus, at the present time, any use that was made of a program for standard language acquisition would be made by a relatively segregated student population, whether in regular schools, in summer school programs or in community groups or other extra-curricular settings. Two additional factors should be taken into account in relation to the present segregation of the inner city school population. First, if any steps in the desired direction of desegregation of schools take place within the period of time required to develop a language program and effect its use in the schools, it would seem less desirable to plan a long range program that is designed for one racial group and that would entail some partial or temporary segregation for administration. Second, recent linguistic studies point to a socio-economically influenced variation in the occurrence of certain language features.[3] If this continuing research reveals further similarities in linguistic structures

---

[2] A study by Walker, Stinchcombe, and McDill (1967) provides these figures.

[3] Two works, in particular, provide discussions of the approaches and assumptions underlying current linguistic research on potential indices of social stratification. The work of Labov (1966) reports on studies undertaken in New York City, and that of Shuy, Wolfram, and Riley (1967) on studies carried out in Detroit.

within socio-economic levels (which would suggest similar learning problems) it would be feasible to design at least some instructional sequences that could be used by both groups. It is suspected that a sizable number of the Baltimore City white students in inner city schools may represent a non-Standard English speaking population and thus may be in need of training in Standard English. It would be useful to have some measure of their performance on a relevant linguistic task by means of which they can be compared to the lower socio-economic Negro group. Further, such a measure could be used to assess the homogeneity of individual performance within the lower socio-economic status white (LSEW) and lower socio-economic status Negro (LSEN) groups respectively.

Descriptive linguistic studies of appropriate samples from the groups would be a complementary source of data, but would require considerable time to complete without providing a directly usable measure of differing abilities to produce Standard English structures.

An article by Labov and Cohen (1967) reports the use of a repetition technique with speakers of non-Standard English. Their work shows that the Standard English utterances are understood, but that while some sentences are repeated exactly, others are translated or transposed into nonstandard equivalents. It is suggested that such an approach could reveal the upper limits of ability to handle certain patterns in Standard English and thus might be used to discriminate among groups of non-Standard English speakers if those groups represent structurally different dialects.

In order to plan the emphasis and order of instruction in a language training program it is necessary to take into account not only those points in the entering student repertoire which are most divergent from the

desired terminal repertoire, but also the points of similarity to this desired terminal repertoire. The repetition technique may provide a means of identifying empirically those language structures which can be assumed to be available in the more formal or careful style of the students and which represent an upper limit in their control of Standard English.

The purpose of this study is to examine a sample of the prospective student population with a view to identifying such subgroups whose language behavior may differ systematically. Performance on a task relevant to a Standard English language program will be the measure of difference among the subgroups. LSEW and LSEN children constitute the subject sample of this study. It is important to note that the study will not attempt to describe the normal language usage or content of the subjects but focuses on their differential ability to produce Standard English utterances under controlled conditions designed to elicit optimal performance.

A secondary purpose of the study is to gather preliminary data on standard language repertoires to be used in the design of teaching materials and more specifically, to gather information on language patterns that indicate a need for intensive training sequences.

Method

Subjects: The subjects were drawn from four inner city elementary schools located in the most depressed socio-economic areas of the city. These schools were chosen, not only to represent the apparent socio-economic characteristics of the neighborhoods, but also because they were all virtually segregated, i.e., the student population was at least

90 percent racially homogeneous. Furthermore, the racial composition of the schools had been relatively constant over a ten-year period. A white segregated school in a middle class neighborhood was chosen as the baseline school. Characteristics of the schools are presented in Table 1. A representation of the racial composition of the schools for the period 1956-1966 is presented in Appendix A. The demographic characteristics of the school neighborhoods are presented in Appendix B.

TABLE 1

CHARACTERISTICS OF SCHOOLS SAMPLED IN THE STUDY[a]

	1966 Total Population	Percentage Negro
Baseline School		
School W0[b]	1,566	9%
Segregated Negro Schools (≧ 90% Negro)		
School N1[c]	1,478	100
School N2[d]	465	96
Segregated White Schools (≧ 90% White)		
School W1[e]	299	0
School W2[f]	461	0

[a] Unpublished data supplied by the Baltimore City Public Schools

[b] W0 identifies the white middle class school

[c] N1 identifies the first LSEN school

[d] N2 identifies the second LSEN school

[e] W1 identifies the first LSEW school

[f] W2 identifies the second LSEW school

Stimulus materials were administered to all children present in one fifth-grade class in each school. Following the research design, the data from eleven subjects were excluded on the following criteria: Negro child in white school (two cases); white child in Negro school (four cases); age of child (one case = 8 years old, one case = 13 years old). Further, the data from three subjects were excluded because a speech impediment rendered the recorded data unintelligible (one case) and the tape recorder failed to record response data (two cases).

The resultant subject sample thus ranged in age from 9 through 12 years and was distributed by school and by sex as indicated in Table 2.

TABLE 2

DISTRIBUTION OF SUBJECTS BY SEX

	W0	N1	N2	W1	W2
Total Number of Subjects	30	30	30	38	30
Male	16	21	15	22	12
Female	14	9	15	16	18

Stimulus Materials: The materials consisted of 60 sentences which represent 15 different syntactic or morphological features of Standard English. The 15 grammatical structures were chosen on the basis of descriptive linguistic data which indicate a tendency in the spontaneous speech of urban LSEN children of ages 9-12 toward the production of forms differing from, but presumed to be functionally equivalent to, the

Standard English form.[4] Sentences were then constructed which contained Standard English forms expected (on the basis of the linguistic data) to be different or absent in the children's normal spontaneous speech. Many of the sentences and a few structures were modified after preliminary testing with 18 fifth-grade boys tested at two inner city community centers. The final list of the critical structures and the stimulus sentences is presented in Appendix C. A list of the stimulus sentences was reordered so that sentences within the structures as well as the structures themselves were noncontiguous. Three preliminary sentences were added so that in administration playback level could be adjusted if necessary, and so that the subjects' understanding of the task could be checked. Two 'dummy' sentences were inserted in the list to provide a check on the subjects' level of performance. The sentences were recorded in a professional recording studio by a male, native speaker of 'network' English, speaking at a normal rate of speed. A six-second interval separated the end of one sentence from a short 1000 cycle tone or 'beep' that signaled the beginning of the next sentence. Two tapes were prepared. Tape A contained preliminary sentences and stimulus sentences in the order 1 through 62. Tape B contained preliminary sentences and stimulus sentences in the order 32 through 62, followed by 1 through 31. In both tapes the dummy sentences were numbered 24 and 49.

---

[4]A selected sample of spontaneous speech recorded in Washington,D.C., is provided by Loman (1967). A discussion of some of the structures characteristic of such speech appears in Labov and Cohen (1967). Samples of the speech of a group of inner city Negro boys, ages 9-12, have been recorded by the authors to provide confirmation of the occurrence in Baltimore of these forms differing from Standard English.

Procedures: Before the sessions began, each class was informed by one investigator that we were studying the speech of school children in Baltimore.[5] The children were told that they would be asked to repeat some sentences and that this was not a test, everyone would do well and no one could fail. Two Uher Model 4000L tape recorders were set up in a room in the school. The individual subject was read a simple set of instructions as he was fitted with a pair of Korting E2 earphones and an Electro-Voice Miniature Lavalier microphone (Model 649B). The last instruction was, "Remember, you should repeat each sentence exactly as you hear it." After hearing the preliminary sentences the child was allowed to increase or decrease the playback volume of the tape if he desired. Two investigators attended each session, one communicating with the child and running the playback machine, the other handling the recording machine. The session ran without interruption. Playing time for the tape was 10 minutes and 7 seconds; each session required about 13 minutes.

Scoring: During the sessions, one investigator scored each response. A response was scored '0' if the critical structure of the stimulus sentence was repeated exactly. A response was scored '1' if the critical structure was modified or omitted. A response was scored 'B' (blank) if the stimulus sentence was not repeated or was unintelligible. Table 3 provides examples which may clarify the scoring procedure.

---

[5] Each class was visited by the investigator before the session began in order to explain the procedures and to reduce any misunderstandings or apprehensions which might arise in children waiting to be called to the session.

TABLE 3

EXAMPLES OF THE SCORING PROCEDURE

Stimulus Sentence	Response	Score
(a) Ask her <u>whose</u> ring she is wearing.	Ask her who ring she's wearing.	1
(b) Ask her <u>whose</u> ring she is wearing.	Ask her whose ring she wearing.	0
(c) Dwight got some new shoes, but he <u>hasn't</u> worn them yet.	Dwight got some new shoes, but.....	B
(d) Dwight got some new shoes, but he <u>hasn't</u> worn them yet.	Dwight got some new shoes, but he hasn't wore them yet.	0
(e) Dwight got some new shoes, but he <u>hasn't</u> worn them yet.	Dwight got a pair of new shoes, but he ain't wore them yet.	1

Note: Underlined forms are the critical structure in the stimulus sentence.

The critical structure in examples (a) and (b) is the interrogative form of the personal posessive determiner. The critical structure in examples (c), (d) and (e) is the negated auxiliary; the form of the past participle in the verb phrase is not included in the critical structure.

The responses were scored independently by a second investigator from the tape recorded sessions, and the scorings were compared. An estimate of the median number of intercoder disagreements per student was one (out of 60 possible). Disagreements were resolved by mutual agreement of the investigators on rehearing the recorded response. This scoring procedure resulted in gross scores. A subsequent analysis was performed in which the definition of the critical structure was expanded

where relevant. For example, the form of the participle was added to that of the auxiliary for the structure 'negated auxiliary'. In sentence (c) of Table 3 only the form of hasn't was scored; in the subsequent analysis the verb phrase hasn't worn was scored. This expanded scoring procedure resulted in modified scores. In many cases the critical structure also occurred in sentences other than those designed to elicit the critical structure. Some of these instances were selected for additional scoring in order to check on the generalization of the responses noted in the modified scoring. The modified scoring and the additional scoring were done by the principal experimenter only. A summary of the gross scoring procedures and a list of the critical structures is included as Appendix D, accompanying the text of Tape A. Departures from the gross scoring are noted as appropriate in the tables of results. The design of the study is presented in Table 4.

TABLE 4

DISTRIBUTION OF THE VARIABLES BY SCHOOLS

	Baseline School W0	Schools N1, N2 W1 and W2
Total Number of Subjects	30	128
Negro	0	60
White	30	68
Male	16	70
Female	14	58
Total Number of Responses	1800	7680
Per Person	60	60
Per Grammatical Structure	4	4
Total Different Grammatical Structure	15	15

Results

The number of responses scored as blanks was small —— 85 in a total of 9480 responses. The distribution of blanks was not related to the critical structures. This result is interpreted to mean that all critical structures were in some way reproducible. The percentage of blanks by school is presented in Table 5. All further presentation of results will exclude the blanks from the scoring.

TABLE 5

PERCENTAGE OF BLANKS FOR ALL SCHOOLS, WHITE SCHOOLS, NEGRO SCHOOLS AND BASELINE SCHOOL

All Schools	White Schools	Negro Schools	Baseline School
0.9%	1.0%	1.0%	0.5%
(N=9480)[a]	(N=4080)[a]	(N=3600)[a]	(N=1800)[a]

[a] N = Number of subjects times 60 responses per subject

The underlying process in this repetition task is not assumed to entail the verbatim memorization of the sentence, and indeed no responses resulted in the parroting of the last several words of the sentence. However, it seemed desirable to examine the relationship between the percentage of transpositions and the length of the sentences. Sentence length was measured in syllables.[6] The results are presented in Figure 1.

[6] Length of sentence is variously measured in number of syllables, number of words or number of morphemes. In this case number of syllables was chosen as the simplest and most direct measure for quantifying the length of the oral stimulus sentences. Certain properties of a sentence, (other than syllable, word or morpheme count) have also been shown to account effectively for difficulty in recall. Savin and Perchonock (1965) suggest that the number of transformations as a measure of grammatical complexity accounts in part for differential recall of sentences of the same length in words. In the present study, however, sentences were not controlled within or between structures for transformational complexity.

Although the LSEW and LSEN schools clearly show a greater percentage of transpositions for sentences of all lengths than does the baseline school, the data offer no evidence that percentage of transpositions is a function of the sentence length as measured in syllables.

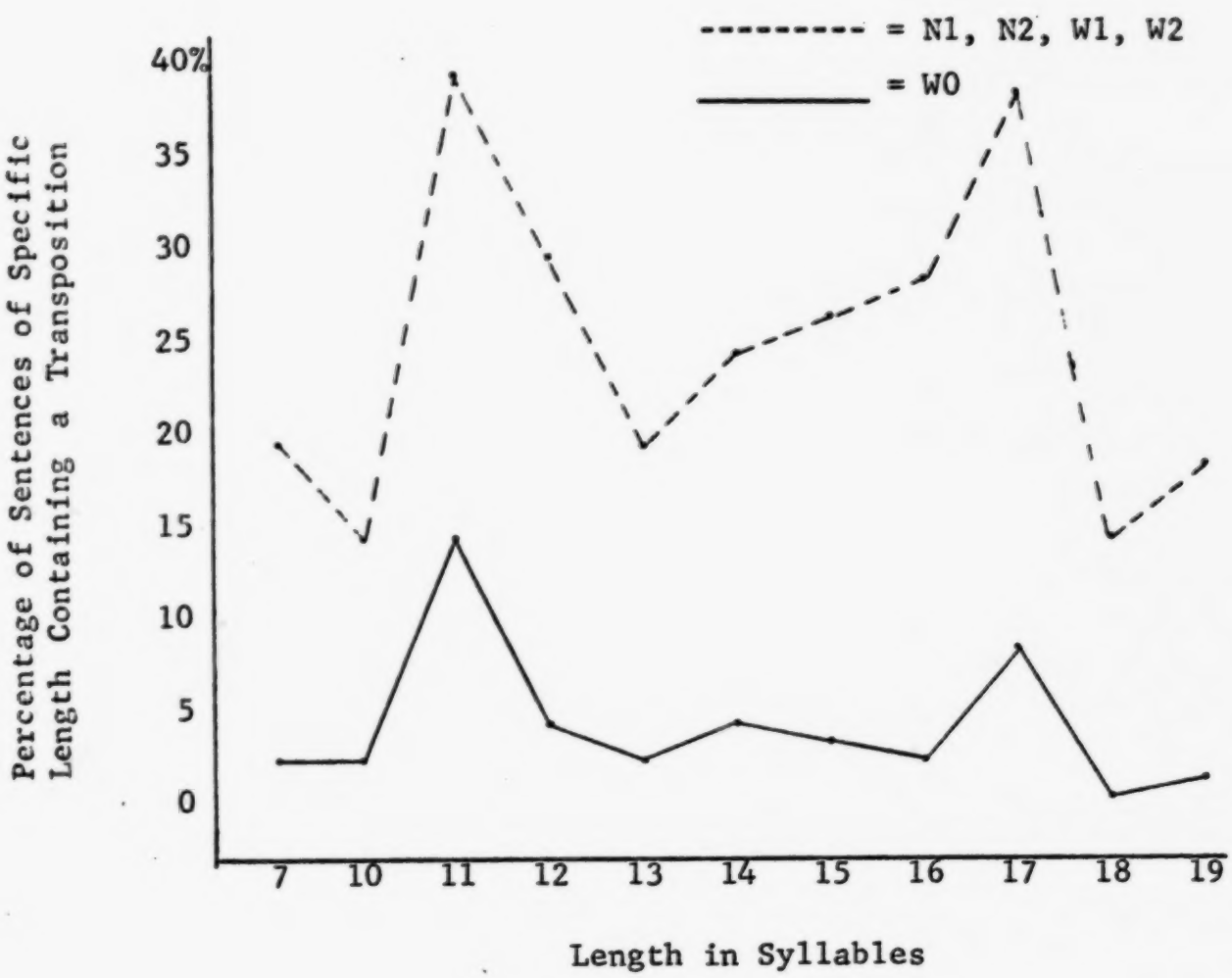

Figure 1. Relation between sentence length in syllables and percentage of sentences of a specific length that contain a transposition. In the 60 sentences, the distribution of sentences of particular syllable length is as follows: Length in Syllables - 7 10 11 12 13 14 15 16 17 18 19
Number of Sentences - 1 1 6 13 9 9 7 8 4 1 1

Recent studies indicate that sex, age, and/or social class differences in language behavior may vary with the particular type of behavior studied (Deutsch, Maliver, Brown, and Cherry, 1964; O'Donnell, Griffin and Norris, 1967). To investigate the effects of such variables (sex and age) on the current research, Chi square tests were run individually

on the data from each of the schools. The age range for all groups in this study is 9 years to 12 years. For purposes of analysis, the individual groups were divided at the median age and at the median number of transpositions, both of which differed among the groups.

TABLE 6

CHI SQUARE RESULTS

	Variables	X^2	d.f.	p[(a)]
School W0:	Sex versus Number of Transpositions	.58	1	n.s.
	Age versus Number of Transpositions	.70	1	n.s.
School N1:	Sex versus Number of Transpositions	.00	1	n.s.
	Age versus Number of Transpositions	.64	1	n.s.
School N2:	Sex versus Number of Transpositions	.64	1	n.s.
	Age versus Number of Transpositions	2.47	1	n.s.
School W1:	Sex versus Number of Transpositions	.44	1	n.s.
	Age versus Number of Transpositions	4.48	1	$<.05$
School W2:	Sex versus Number of Transpositions	4.69	1	$<.05$
	Age versus Number of Transpositions	2.24	1	n.s.

(a) $p > .05$ considered not significant (n.s.)

As can be seen in Table 6, age and sex show no consistent relationship to the number of transpositions by school. The presence of significant relationships in two of the ten comparisons could be explained as resulting from random variation or the presence of intervening variables. On the basis of the lack of a pattern of significant relationships between age and sex and the number of transpositions, the variables of age and sex will not be considered further in the analysis.

The effect of the order of sentence presentation (i.e., Tape A or Tape B) was also examined. In no case was any consistent relationship found between percentage of transpositions and order of sentences.

The percentage of transpositions of the critical structure was thus the principle measure of performance. The means and standard deviations of the gross scores by individual schools are presented in Table 7 as summary measures of the results. As can be seen, the means for schools W1 and W2 are similar, as are the means for schools N1 and N2. From the indications of these means, and from the indications of the segregated character of the neighborhoods it was predicted that in the performance on the individual structures, school N1 would be more similar to school N2 than to either school W1 or W2 and vice versa. A total of 60 comparisons was made: transposition scores for each of the 15 structures were compared to determine the difference between N1 and W1; N2 and W1; N1 and W2; N2 and W2. In 51 of these 60 comparisons the differences were in the predicted direction, i.e., N1 was more similar to

N2 than to W1 or W2, and N2 was more similar to N1 than to W1 or W2. ($p < .001$ by a sign test). These results were considered adequate to justify presenting further comparisons according to the three groups W0, N1 and N2, and W1 and W2.

TABLE 7

MEANS AND STANDARD DEVIATIONS OF
PERCENTAGE TRANSPOSITION SCORES BY SCHOOLS

	W0	N1	N2	W1	W2	Mean of Schools N1,N2,W1 and W2
Mean	5.67%	36.06%	34.50%	21.97%	25.79%	28.92%
SD	4.30	15.11	16.12	10.31	16.77	15.75
	(N=1800)[a]	(N=1800)[a]	(N=1800)[a]	(N=2280)[a]	(N=1800)[a]	

[a]N = number of subjects times 60 responses per subject

The results presented in Table 8 indicate that the percentage of transpositions for both LSEW schools and both LSEN schools exceeds that of the white middle class school on all critical structures. Within the inner city schools, white and Negro schools perform differently according to the critical structure. The percentage of transpositions in the Negro schools exceeds that of the white schools for all structures except structures #5, #6, #12, #13 and #15.

TABLE 8

PERCENTAGE OF TRANSPOSITIONS FOR GROSS SCORING

Structure	Two White Schools	Two Negro Schools	Baseline School
1. Past tense verb	5.1%	18.7%	0.8%
2. Plural verb	28.7	54.1	1.6
3. Possessive noun	2.9	31.2	0.0
4. Copula	8.8	22.5	0.8
5. Reflexive pronoun	54.7	53.3	11.6
6. Demonstrative pronoun	41.1	37.0	6.6
7. Singular verb	19.1	56.1	0.8
8. Embedded question 'if'	11.4	47.9	0.0
9. Possessive determiner	9.5	32.5	4.1
10. Clause introducer	26.8	35.0	8.3
11. Negated auxiliary verb	25.3	39.5	1.3
12. Embedded question 'whether'	58.8	30.8	20.8
13. Negative concord	26.1	25.8	8.3
14. Plural noun	5.1	22.9	2.5
15. Relatives	31.9	19.5	15.8
	(N=272) [a]	(N=240) [a]	(N=120) [a]

[a] N=number of subjects multiplied by 4 responses per structure

When the transpositions resulting in Standard English are subtracted from the total number of transpositions, the scores reflect responses considered to be nonstandard.[7] In Table 9 only such transpositions are presented. The scoring has been modified to include the complete verb phrase for structures #8, #11, and #12. For structures #1 and #7 each verb form in the sentence was scored separately. For structure #4 only the absence of the copula was scored rather than absence or other transposition as in Table 8.

The results presented in Table 9 indicate that for the baseline school only eight structures elicited nonstandard transpositions, and of these, only structure #5 elicited a transposition score exceeding 10 percent. A comparison of the scores of white and Negro schools indicates the same direction of differences as that obtained in Table 8, with a general reduction in the percentage of transpositions. The fact that the percentage scores for structures #2, #3, #9 and #14 remain the same indicates that none of the transpositions resulted in Standard English. The separate scoring of verbs in sentences in structures #1 and #7 did not influence the trend of reduction in percentage of transpositions. The modified scoring of structure #4, which scored absence of copula only, reveals the tendency, predominate in the Negro schools, to omit the copula. The common decrease in scores for structure #12 is explained by the substitution of 'if' for 'whether'. However, by scoring

---

[7] English texts currently in use in the 4th and 5th grades in Baltimore City public schools provide rules governing the form and use of the majority of the critical structures. Oral or written drills on these structures are also found in the text books. Structures #8 and #15 appeared only in directions to the student and in reading passages; no rules for these structures were explicitly stated, nor were drills provided.

the form of the verb phrase following the connective, the tendency to reproduce the embedded clause as non-Standard English remains evident. The common increase in percentage of transpositions for structure #8 with modified scoring is explained by the number of responses that reproduced the connective 'if' while transposing the verb phrase to a nonstandard form, e.g., "Let me ask him <u>if he seen</u> my dog around here."

TABLE 9

PERCENTAGE OF TRANSPOSITIONS RESULTING IN NON-STANDARD ENGLISH
(Gross Scoring except where Modified Scoring is noted)

Structure	White Schools	Negro Schools	ϵ [a]	Baseline School
1 [b]	2.3% (N=340)	13.3% (N=300)	11.0%	0.0%
2	28.6	54.5	25.9	0.0
3	2.9	31.2	28.3	0.0
4 [c]	1.1	13.3	12.2	0.0
5	52.2	51.6	- 0.6	11.6
6	32.3	30.0	- 2.3	4.1
7 [d]	7.5 (N=544)	40.2 (N=480)	32.7	0.0
8 [e]	17.6	61.6	44.0	0.8
9	9.5	32.5	23.0	4.1
10	20.5	27.9	7.4	5.0
11 [f]	19.4	40.0	20.6	2.5
12 [g]	39.1	22.0	-17.1	3.3
13	5.1	2.5	- 2.6	0.8
14	5.1	22.9	17.8	0.0
15	6.2	5.8	- 0.4	0.0
	(N=272) [h]	(N=240) [h]		(N=120) [h]

(a) ϵ = Negro percentage of transpositions minus white percentage of transpositions.

(b) The two verbs in sentence 16 are scored separately. (N=number of subjects times 5 responses)

(c) Scoring absence of copula only. Responses including lack of subject-verb agreement were excluded.

(d) Each verb in sentences 22, 7 and 54 scored separately and single verb in sentence 38. (N=number of subjects times 8 responses)

(e) Not only <u>if</u> but also the structure of the verb phrase in the if-clause was scored, e.g., I'm going to ask Anthony <u>do he have</u> any money left -or- I'm going to ask Anthony <u>if he have</u> any money left.

(f) The form of the past participle is added to the auxiliary verbs. Thus, any nonstandard phrase is scored.

(g) Not only modification of <u>whether</u> but the structure of the verb phrase in the whether-clause was scored.

(h) In all cases except those explicitly noted in this table, N=number of subjects times 4 responses.

When a few additional sentences were scored for certain critical structures (#1, #2, #3, #6, #13, #14 and #15), the relative positions of the white schools and the Negro schools remained the same for five of the seven structures examined. The positions reversed for structures #13 and #15 where percentages of transpositions resulting in nonstandard English were less than 10 percent (both with and without additional sentences scored). In Table 10, the effect of the additional sentences in increasing or decreasing the percentage of transpositions is indicated.

TABLE 10

PERCENTAGE OF TRANSPOSITIONS RESULTING IN NON-STANDARD ENGLISH FOR STRUCTURES WITH ITEMS ADDED
(Scoring is modified as noted in Table 9)

Structure	White Schools	Direction	Negro Schools	Direction	Additional Sentences Scored
1	4.1%(N=408)	+[a]	15.5%(N=360)	+	+12
2	35.2 (N=340)	+	52.6 (N=300)	-[b]	+41 (were)
3	1.6 (N=476)	-	28.3 (N=420)	-	+55, 56, 25
6	28.1 (N=408)	-	25.5 (N=360)	-	+61, 44
13	6.6 (N=476)	+	8.4 (N=420)	+	+10, 26, 57
14	2.2 (N=748)	-	19.3 (N=660)	-	+ 2, 9, 17 33, 51, 53 41
15	5.8 (N=544)	-	7.2 (N=480)	+	+26, 41, 60 6

(a) + = additional sentences increased percentage of transpositions from scores in Table 9.

(b) - = additional sentences decreased percentage of transpositions from scores in Table 9.

A closer examination of the forms of the transpositions produced will be carried out at a later time. Seven sentences were examined, however, to see how the range of forms of transpositions (as opposed to the percentage of transpositions) might be distributed among the schools and in the groupings of schools. The specific forms of transpositions are presented in Appendix E, from which can be read those forms unique to a given school or shared by a group of schools.

Discussion

The process which is assumed to underly this simple repetition task is that the stimulus sentence is decoded, stored and encoded as the response. The present study cannot speak to the question as to where or when the form of the encoded response is modified as a transposition, that is, whether modifications are already present in the decoding process or are initiated before or during the encoding process. The conclusion reached by Fraser, Bellugi, and Brown (1963) in a study of the control of grammar in three-year old children, that "imitation is a perceptual-motor skill that does not work through the meaning system" does not seem to apply to the present older population. Evidence of semantic and grammatical transformation appears in the responses in all schools. Examples of such responses are listed in Table 11. This conception of the underlying process is supported by the findings from which Miller and Isard (1963) conclude that "linguistic rules of a non-phonological sort do indeed have measurable effects on our ability to hear and repeat sentences."

TABLE 11

SAMPLE RESPONSES TO STIMULUS SENTENCES

Sentence Number	Stimulus Sentence	Response
10.	There was hardly anything left to eat by the time we got there.	There was hardly anything left to eat when we got there. (W0)
57.	There wasn't anything to eat; there wasn't even any bread.	There wasn't anything to eat, not even some bread. (N1)
29.	Shirley doesn't have a brother; she doesn't have a sister either.	Shirley does not have a sister or a brother. (W1) Shirley hasn't a brother or a sister either. (W1)
35.	You can tell he's a lot smarter than his brother.	You can tell he's twice smarter than his brother. (N2)

Certain special factors are operative in determining the forms of the response in the present study, and these factors are related to the fact that the linguistic patterns available to the subjects in decoding and encoding are not in many cases identical to those embodied in the stimulus material. Evidence in support of this explanation lies primarily in the clustering of transpositions by schools. The percentage of transpositions by structures (derived from both gross and modified scoring) indicates that in respect to the repetition task the segregated schools can be grouped according to their responses to the selected Standard English structures. With respect to certain structures, e.g., use of the demonstrative pronoun, the LSEN schools obtained lower transposition scores than did the LSEW schools. This finding suggests that in such instances the language patterns available to the LSEN subjects resemble those of Standard English more than do those available to the LSEW subjects.

It should be pointed out that when a transposition response occurs, it is not necessarily tapping a dialect feature which occurs consistently in the spontaneous speech of the individual subject. The performance obtained is liable to the constraints of the research situation, i.e., there is probably a combined effect resulting from a compelling dialect feature present in the child's normal spontaneous speech which interacts with the effects of school training in Standard English. Also, the language background of the teachers as well as the instructional emphasis on language will have had different effects within the subgroups of schools. In addition, the prestige forms acknowledged by the subgroups as appropriate for formal communication situations may be a contributing factor.

The technique was employed to sample the ability of the subjects to repeat certain Standard English structures. It appears that this ability to repeat (apparently <u>not</u> a simple operation for many of the students in the sample population) cannot be assumed, but must be systematically developed at an early stage in any training materials in Standard English.

The results of the present study indicate that, although the subgroups do show different transposition scores for certain structures, the degree of similarity between the two groups is sufficient to justify some common bases for training. Furthermore, problems in the production of Standard English can be identified for specific treatment by special instructional sequences.

REFERENCES

Deutsch, M., Maliver, A., Brown, B., & Cherry, E. Communication of information in the elementary school classroom. Cooperative Research Project No. 908, New York: New York Medical College, Department of Psychiatry, Institute for the Developmental Studies, 1964.

Fraser, C., Bellugi, U., & Brown, R. Control of grammar in imitation, comprehension, and production. Journal of Verbal Learning and Verbal Behavior, 1963, 2, 121-135.

Labov, W. The social stratification of English in New York City. Washington, D.C.: Center for Applied Linguistics, 1966.

Labov, W. & Cohen, P. Systematic relations of standard and non-standard rules in the grammars of Negro speakers. Project Literacy Reports, Ithaca, New York: Cornell University, July, 1967, 66-85.

Loman, B. (trans. & ed.). Conversations in a Negro American dialect. Urban Language Series. Washington, D.C.: Center for Applied Linguistics, 1967.

Miller, G., & Isard, S. Some perceptual consequences of linguistic rules. Journal of Verbal Learning and Verbal Behavior, 1963, 2, 217-228.

O'Donnell, R., Griffin, W., & Norris, R. Grammatical structures in the speech of children: A transformational analysis. The Journal of Experimental Education, Winter, 1967, 36-2, 70-77.

Savin, H. & Perchonock, E. Grammatical structure and the immediate recall of English sentences. Journal of Verbal Learning and Verbal Behavior, 1963, 2, 121-135.

Shuy, R., Wolfram, W. & Riley, W. Linguistic correlates of social stratification in Detroit. Cooperative Research Project No. 6-1347, East Lansing, Michigan: Michigan State University, 1967.

United States Department of Commerce, Bureau of Census. United States censuses of population and housing, 1960 final report PHC (1)-13. Washington, D.C.: United States Government Printing Office, 1961.

Walker, D., Stinchcombe, A., & McDill, M. School desegregation in Baltimore. Baltimore: Johns Hopkins University, Center for the Study of Social Organization of Schools, 1967.

APPENDIX A

STABILITY OF RACIAL DISTRIBUTION (PERCENTAGE NEGRO) OF SELECTED SCHOOLS[a]
(1956-1966)

School	Year										
	'56	57	58	59	60	61	62	63	64	65	66
WO	1%	2%	2%	2%	3%	3%	3%	4%	5%	7%	9%
N1	-	-	-	-	-	-	-	100	100	100	100
N2	100	100	100	100	100	100	100	99	99	97	96
W1	0	0	0	0	0	0	0	0	0	0	0
W2	0	0	0	0	0	0	0	0	0	0	0

[a]Unpublished data from the Baltimore City Public Schools

APPENDIX B

DEMOGRAPHIC AND SOCIOLOGICAL CHARACTERISTICS OF SAMPLE SCHOOL NEIGHBORHOODS[a]

School	Median Family Income	Median Number of Years of School	Percentage of Civilian Labor Force Unemployed	Percentage of Dilapidated Housing	Percentage of all Occupied Units with More than One Person Per Room
W0	$12,593	14.5	0.7%	0.0%	1.13%
N1	2,404	7.4	14.5	30.11	31.47
N2	2,349	7.2	12.5	28.21	19.79
W1	5,510	8.0	9.3	1.74	11.83
W2	4,913	8.9	12.0	2.75	10.36
City of Baltimore	5,659	8.9	6.7	3.14	10.52

[a] Data from the 1960 Final Census Report PHC (1)-13

APPENDIX C

STIMULUS SENTENCES ARRANGED ACCORDING TO CRITICAL STRUCTURES

1. Past tense verb

When I passed by the store, I read the posters.
He stayed home from school yesterday because he had a bad cold.
When the ball hit him on the shoulder, he started crying.
When James finished studying, he turned on T.V.

2. Plural verb

Four or five girls were standing around watching the fight.
Three or four boys were cleaning up the playground this morning.
Several of my friends were invited to the Christmas party.
Two men and three women were waiting for the bus.

3. Possessive noun

They were at their grandmother's house when the fire started.
Sharon's boyfriend met her at the dance on Friday.
My father's brother came to stay with us for a few months.
They said that Mary's best friend ran away from home.

4. Copula

The policemen are going to see what's going on over there.
You can tell he's a lot smarter than his brother.
Whenever I come home late at night, my mother is worried.
If you don't watch that dog, he's going to get loose.

5. Reflexive pronoun

Even Robert couldn't lift the box by himself.
They talked by themselves for a while and then they left the party.
The three brothers started out for New York by themselves.
Each person has to fill out the score sheet himself.

6. Demonstrative pronoun

If I have enough money, I'm going to buy some of those sports magazines.
At the fair they have those little cars that you can ride in.
I've seen both of those men around here before.
Give me some of those cards, and I'll help you sort them.

7. 3rd person singular verb

When he comes home from work, he is always tired and hungry.
When Michael walks to school, he cuts through that alley.
In the evening he eats supper, reads the newspaper, and goes to bed.
Robert says he likes to play tackle better than touch.

8. Embedded questions with 'if'

Let me see if I can remember that girl's name.
Let me ask him if he has seen my dog around here.
I'm going to ask Anthony if he has any money left.
They're going to ask him if he wants a bicycle for his birthday.

9. Possessive pronoun (whose)

Whose money did he use to buy the tickets for the game?
Find out whose name is on the teacher's list.
Ask her about whose ring she is wearing.
If we can't use David's house for the party, whose can we use?

10. Clause introducer

It was my sister who told me not to let anyone come in.
There was hardly anything left to eat by the time we got there.
There wasn't anything to eat; there wasn't even any bread.
There were just five boys who went to camp last summer.

11. Negated auxiliary verb

If he hasn't signed up for the contest yet, he will have to hurry.
If they didn't have enough food to go around, why didn't they say so?
Dwight got some new shoes, but he hasn't worn them yet.
My sister won't go out because her boyfriend hasn't called yet.

12. Embedded questions with 'whether'

Ask Sandy whether she knows the right answer.
I asked him whether he has to work late tonight.
Ask the teacher whether we have to use ink.
Ask them whether they saw the accident or not.

13. Negative concord

I never pay any attention to anything my brother says.
There isn't any dog that can get over a fence like that.
I'll never buy one of those plastic raincoats again.
Shirley doesn't have a brother. She doesn't have a sister either.

14. Plural noun

The new playground is about six blocks from here.
The new glove cost five dollars and sixty cents.
Those people left about two weeks ago and they haven't come back.
I had to borrow thirty cents from the office for lunch.

15. Relatives

There was one man who tried to get away, but they shot him.
Did you recognize the one who had on the cowboy boots?
There is one man on our block who worked in the circus.
Did you find out the name of the girl who just moved in next door?

APPENDIX D

TAPE A WITH CRITICAL STRUCTURES FOR GROSS SCORING UNDERLINED

Preliminary sentences

Do you ever dream in technicolor?
We didn't see anybody inside the store.
Have you ever gone on a long trip?

Stimulus sentences

1. When I passed by the store window, I read the posters.(a)
2. Three of four boys were cleaning up the playground this morning.
3. My father's brother came to stay with us for a few months.
4. If you don't watch that dog, he's going to get loose.(b)
5. Even Robert couldn't lift the box by himself.
6. At the fair they have those little cars that you can ride in.
7. In the evening he eats supper, reads the newspaper, and goes to bed.(a)
8. They're going to ask him if he wants a bicycle for his birthday.
9. Whose money did he use to buy the tickets for the game?
10. There was hardly anything left to eat by the time we got there.
11. Dwight got some new shoes, but he hasn't worn them yet.
12. Ask them whether they saw the accident or not.
13. I never pay any attention to anything my brother says.(a)
14. The new glove cost five dollars and sixty cents.(a)
15. There is one man on our block who worked in the circus.
16. When James finished studying, he turned on the T.V.(a)
17. Four or five girls were standing around watching the fight.
18. Sharon's boyfriend met her at the dance on Friday.
19. Whenever I come home late at night, my mother is worried.(b)
20. Each person has to fill out the score sheet himself.

21. If I have enough money, I'm going to buy some of those sports magazines.
22. When Michael walks to school, he cuts through that alley.(a)
23. I'm going to ask Anthony if he has any money left.
24. We heard a strange noise outside about eleven o'clock.
25. If we can't use David's house for the party, whose can we use?
26. It was my sister who told me not to let anyone come in.
27. If they didn't have enough food to go around, why didn't they say so?(a)
28. Ask the teacher whether we have to use ink.
29. Shirley doesn't have a brother. She doesn't have a sister either.(a)
30. The new playground is about six blocks from here.
31. Did you recognize the one who had on the cowboy boots?
32. When the ball hit him on the shoulder, he started crying.
33. Two men and three women were waiting for the bus.
34. They were at their grandmother's house when the fire started.
35. You can tell he's a lot smarter than his brother.(b)
36. The three brothers started out for New York by themselves.
37. Give me some of those cards and I'll help you sort them.
38. When he comes home from work, he is always tired and hungry.
39. Let me ask him if he has seen my dog around here.
40. Ask her whose ring she's wearing.
41. There were just five boys who went to camp last summer.
42. If he hasn't signed up for the contest yet, he'll have to hurry.
43. I asked him whether he has to work late tonight.
44. I'll never buy one of those plastic raincoats again.
45. I had to borrow thirty cents from the office for lunch.
46. There was one man who tried to get away, but they shot him.
47. He stayed home from school yesterday because he had a bad cold.

48. Several of my friends <u>were</u> invited to the Christmas party.

49. Anthony was taken to the hospital in an ambulance.

50. They said that Mary<u>'s</u> best friend ran away from home.

51. The policemen <u>are</u> going to see what's going on over there.[(b)]

52. They talked by <u>themselves</u> for awhile and then they left the party.

53. I've seen both of <u>those</u> men around here before.

54. Robert say<u>s</u> he like<u>s</u> to play tackle better than touch.[(a)]

55. Let me see <u>if</u> I can remember that girl's name.

56. Find out <u>whose</u> name is on the teacher's list.

57. <u>There wasn't</u> anything to eat; <u>there wasn't</u> even any bread.[(a)]

58. My sister won't go out because her boyfriend <u>hasn't</u> called yet.

59. Ask Sandy <u>whether</u> she knows the right answer.

60. There isn't <u>any</u> dog that can get over <u>a</u> fence like that.[(a)]

61. Those people left about two week<u>s</u> ago and they haven't come back.

62. Did you find out the name of the girl <u>who</u> just moved in next door?

(a) Any transposition of any underlined form is scored as '1'; multiple transpositions are not separately scored.

(b) Omission of the copula or any modification of the copula is scored '1'.

APPENDIX E

RANGE OF VARIATION IN RESPONSES TO STIMULUS SENTENCES 11, 12, 23, 28, 39, 43 AND 58

NOTE:

	Schools				
	W0	N1	N2	W1	W2
(N=)	30	30	30	38	30

Sentence #11: Dwight got some new shoes, but he hasn't worn them yet.

		W0	N1	N2	W1	W2
hasn't	wore		4	6	5	6
haven't	wear			1		
	wore		4	6	1	2
	worn		9	7	1	2
hadn't	worn	1			1	
	got to wear					1
didn't	wear	1	1	1	2	1
	wore		1	3	1	1
	worn					1
ain't	wore				2	
never	wore		1		1	1
Total Transpositions		2	20	24	14	15
Number of Different Forms of Responses		2	6	6	8	8

Sentence #12: Ask them <u>whether they saw</u> the accident or not.

		W0	N1	N2	W1	W2
whether	they have seen	1				
	they seen		1	1	1	1
	did they see		1	1		
	they have saw		1			
	or not did they saw[(a)]		1			
	or not they saw[(a)]					1
	they had saw			1		
	did they saw			3		
	if they saw			1		1
	they has saw			1		
if	they had seen	1				
	they saw	2		1	9	6
	they had saw				1	
	they seen				2	
	they ever saw				1	2
	they rather saw				1	
	they have saw					2
	they see					1
Ø	did they saw		2			1
	have they saw		2			1
	did they see			3	5	1
	has they saw			1	1	
	did they already see				1	
	Total Transpositions	4	8	13	22	17
	Number of Different Forms of Responses	3	6	9	9	10

(a) the final 'or not' in sentence dropped

Sentence #23: I'm going to ask Anthony <u>if he has</u> any money left.

		W0	N1	N2	W1	W2
if	he have		4	11		
	he's have			1		
	he's got				1	2
	he got					1
whether	he has		1			
	he have			1		
Ø	does he have		10	4	5	4
	do he have		11	7	1	
	is he has				1	
	has he				1	
	does he got					1
	will he have		1			
	is he have					1
Total Transpositions		0	27	24	9	9
Number of Different Forms of Responses		0	5	5	5	5

Sentence #28: Ask the teacher <u>whether we have</u> to use ink.

		W0	N1	N2	W1	W2
whether	do we have		1	2		
	does we have		1			
wh r or not	we have		1		2	
	do we have		1			
whether if	we have	2			2	
if	we have	9	1	4	13	17
	we had		1	1	1	
	we rather have				3	
ø	do we have		4	5	3	2
	does we have		1			1
	do we rather have		1			
Total Transpositions		11	12	12	24	20
Number of Different Forms of Responses		2	9	4	6	3

Sentence #39: Let me ask him <u>if he has seen</u> my dog around here.

		W0	N1	N2	W1	W2
if	he saw					1
	he seen			1	5	6
	you seen		1			
	he have seen			1		
	they have seen	1				
∅	has he seen		2	4	6	2
	have he seen		5	5	1	1
	did he see		6	2		1
	is he has seen		2			
	has he have seen		1			
	is he seen		1	1		
Total Transpositions		1	18	14	12	11
Number of Different Forms of Responses		1	7	6	3	5

Sentence #43: I asked him <u>whether he has</u> to work late tonight.

		W0	N1	N2	W1	W2
whether	he had	8	5	10	5	5
	he have	2	8	5		
	or not he have		1			
	do he have		1			
	do he had			1		
	did he had		1			
	does he have		1			
	if he have			1		
	if he has				3	2
	if he had			1		
	would he have					1
why	did he have		1			
if	he has	1			4	6
	he had		1	1	6	4
	he have			1	1	1
	he has to rather (work)					1
	he's had			1		

Continued on the following page

Continued from previous page

Sentence #43: I asked him <u>whether he has</u> to work late tonight.

		W0	N1	N2	W1	W2
Ø	has he has	1	1			
	do he have		1	1		
	has he have		1			
	did he had		2			
	is he have		1			
	does he have			2	1	2
	have he				1	
	have he have			1		
	will he had				1	
	did he have				2	
rather	if he has					1
	Total Transpositions	12	25	25	24	23
	Number of Different Forms of Responses	4	13	11	9	9

Sentence #58: My sister won't go out because her boyfriend <u>hasn't called</u> yet.

		W0	N1	N2	W1	W2
haven't	called		10	9		
hadn't		1	1	1		1
ain't					1	
never				1	4	4
didn't	call		1	2		
haven't			2			
Total Transpositions		1	14	13	5	5
Number of Different Forms of Responses		1	4	4	2	2